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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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08/913,430      12/09/97      WALKER      J      U011415-0

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HM22/0830

EXAMINER

SWARTZ, R

ART UNIT

PAPER NUMBER

1645

DATE MAILED:

08/30/00

**Please find below and/or attached an Office communication concerning this application or proceeding.**

**Commissioner of Patents and Trademarks**

# Office Action Summary

Application No.  
08/913,430

Applicant  
Walker et al

Examiner  
Rodney P. Swartz, Ph.D.

Group Art Unit  
1645



☒ Responsive to communication(s) filed on 30May2000

☒ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

## Disposition of Claims

☒ Claim(s) 53-59, 67, 70-72, and 75-94 is/are pending in the application.

Of the above, claim(s) 53-59, 67, and 70-72 is/are withdrawn from consideration.

☐ Claim(s) \_\_\_\_\_ is/are allowed.

☒ Claim(s) 75-94 is/are rejected.

☐ Claim(s) \_\_\_\_\_ is/are objected to.

☒ Claims 53-59, 67, 70-72, and 75-94 are subject to restriction or election requirement.

## Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on \_\_\_\_\_ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some\* ☐ None of the CERTIFIED copies of the priority documents have been  
☐ received.

☐ received in Application No. (Series Code/Serial Number) \_\_\_\_\_.

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\*Certified copies not received: \_\_\_\_\_

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

## Attachment(s)

☐ Notice of References Cited, PTO-892

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). \_\_\_\_\_

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

Art Unit:

### **DETAILED ACTION**

1. Applicants' Response to Office Action, received 30May2000, paper#20, is acknowledged. The specification has been substituted. Claims 44-52, 60-66, 68, 69, 73, and 74 have been canceled. New claims 75-94 have been added.

Currently, claims 53-59, 67, 70-72, and 75-94 are pending. Claims 53-59, 67, and 70-72 are withdrawn from further consideration by the examiner, 37 CAR 1.142(b), as being drawn to a non-elected invention (Office Action, paper#17, 24November1999).

2. Claims 75-94 are under consideration.

### **Rejections Moot**

3. The rejection of claims 45-52 under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter, is moot in light of the cancellation of the claims.
4. The rejection of claims 44-52, 60, 61, 64, 65, 66, 68, and 69 under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential steps, is moot in light of the cancellation of the claims.
5. The rejection of claims 44-52, 60-61, 64-66, 68-69 and 73 under 35 U.S.C. 112, second paragraph, as being indefinite, is moot in light of the cancellation of the claims.
6. The rejection of claims 62 and 73 under 35 U.S.C. 112, second paragraph, as being indefinite, is moot in light of the cancellation of the claims.
7. The rejection of claims 44, 62, 63, and 64 under 35 U.S.C. 112, first paragraph, scope of enablement, is moot in light of the cancellation of the claims.

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8. The rejection of claims 45, 52, 63, 65, 66, 68, and 69 under 35 U.S.C. 112, first paragraph, scope of enablement, is moot in light of the cancellation of the claims.
9. The rejection of claims 44-52, 60-66, 68, 69, 73 and 74 under 35 U.S.C. 112, first paragraph, is moot in light of the cancellation of the claims.
10. The rejection of claims 44 and 60 under 35 U.S.C. 112, second paragraph, as being indefinite, is moot in light of the cancellation of the claims.
11. The rejection of claims 45 and 63 under 35 U.S.C. 112, second paragraph, as being indefinite, is moot in light of the cancellation of the claims.
12. The rejection of claims 46, 47, 48, 49, and 51 under 35 U.S.C. 112, second paragraph, as being indefinite, is moot in light of the cancellation of the claims.
13. The rejection of claims 45, 46, 47, 65, 66 and 69 under 35 U.S.C. 102(b) as being anticipated by Faulds et al (U.S. Pat. No. 5,252,328), is moot in light of the cancellation of the claims.

#### **New Rejections Necessitated by Amendment**

#### **Claim Rejections - 35 USC § 102**

14. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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15. Claims 75, 76, 84, 85, and 89-92 are rejected under 35 U.S.C. 102(b) as being anticipated by Faulds et al (U.S. Pat. No. 5,252,328).

Claims 75, 84, and 85 are drawn to an antigen. While the claims delineate a method of obtaining the antigen, the method does not impart any criticality to the antigen other than it be from a *Mycoplasma*. The method steps are merely directed to the preparation of an antibody which binds to the antigen. The antibody is the claimed invention.

Faulds et al teach an antigen obtained from a *Mycoplasma* having an approximate molecular weight of 72-75 kilodaltons (74.5 kda)(Abstract; Example 4) and a method of identifying said antigen using an antibody (col. 5, lines 23-41).

Claim 76 is drawn to a *mycoplasma hyopneumoniae* antigen having an approximate molecular weight 48 or 64 kDa. The criticality that the N-terminal be a specific sequence is only if the antigen has a molecular weight of 72-75 kDa.

Faulds et al teach *Mycoplasma hyopneumoniae* antigens and vaccine compositions having approximate molecular weights of 48 (col. 5, line 66) and 64 kDa (col. 6, line 4), (Abstract; Example 2).

16. Claims 86, 87 and 88 are rejected under 35 U.S.C. 102(b) as being anticipated by Schaller et al (U.S. Pat. No. 4,894,332).

The rejected claims are drawn to synthetic antigens produced using DNA sequences coding for *Mycoplasma hyopneumoniae* antigens and methods of producing such antigens. The methods steps recite the use of an antibody to detect said antigens.

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Schaller et al teach synthetic antigens and methods of producing such synthetic antigens using DNA sequences coding for *Mycoplasma hyopneumoniae* antigens and detection of said antigens using antibodies (Abstract; col. 1, line 36-44; Fig. 6; Fig. 9).

**Claim Rejections - 35 USC § 112**

17. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

18. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

19. Claims 77-83 and 89-92 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The claims are rejected as being dependent upon rejected claims.

20. Claims 93-94 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

It is unclear what is meant by "functional equivalent thereof".

**Conclusion**

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21. No claims are allowed.

22. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CAR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CAR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.


23. This application contains claims 53-59, 67, and 70-72 drawn to an invention nonelected with traverse in Paper No. 9. A complete reply to the final rejection must include cancellation of nonelected claims or other appropriate action (37 CAR 1.144) See MPEP § 821.01.

24. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rodney P. Swartz, Ph.D., whose telephone number is (703) 308-4244. The examiner can normally be reached on Monday through Friday from 6:30 AM to 4:00 PM EST.

Art Unit:

If attempts to reach the Examiner by telephone are unsuccessful, the examiner's supervisor, Lynette F. Smith, can be reached on (703)308-3909. The facsimile telephone number for the Art Unit Group is (703)308-4242.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the group receptionist whose telephone number is (703)308-0196.

  
RODNEY P. SWART, PH.D.  
PRIMARY EXAMINER

Art Unit 1645

August 27, 2000